

APPENDIX B

Columbus Signature Academy New Tech High School A Program Overview

Columbus Signature Academy New Tech High School, CSA New Tech, opened in 2008 as a member of the New Tech Network. It is a magnet school within the Bartholomew Consolidated School Corporation. CSA is a K-12 pathway with two separate elementary schools, and a middle school program that feed the CSA High School. It opened with the support of the local business community including Cummins Engine Company. It is a public school grades 9-12 with a maximum enrollment of 400 students. The primary instructional practice is project based learning with an emphasis on Universal Design for Learning, UDL. The curriculum is STEM focused. Science and math are integrated throughout the four-year course sequence. Examples of the STEM focus include the following required courses:

Global Science Perspectives - English 9 integrated with Environmental Studies

Societal Analysis - English 10 integrated with Probability and Statistics

GEO-IED - Geometry integrated with Introduction to Engineering Design.

CSA New Tech students are required to take math and science all four years. Project Based Learning provides students and opportunity to engage in authentic applications of math and science content. For example, Honors Physics students learn about the standards of electricity and circuits as they prepare to travel to New Orleans' Lower 9th ward where they volunteer their talents rewiring homes and doing basic home repair for victims of hurricane Katrina. Global Science Perspectives students recently hosted an annual Holiday Ride to promote bike riding in all seasons to reduce carbon emissions. Biology and Environmental Science students harvested our cold weather crops from the CSA garden and hosted a community Thanksgiving meal to promote sustainable agricultural practice. Geo-IED students recently used Autodesk Inventor to create a better chair pad for student chairs. They made prototypes on the 3D printer to present to the chair designer. Societal Analysis students examined why only 60% of Columbus residents use the free curbside recycling program. They created an advertising campaign to increase participation and awareness.

Geo-IED is the beginning of a four-year seamless pathway to engineering – see appendices. Students continue the pathway earning dual credits in POE, CIM, and participating in a school to work internship senior year. Students are graded on five school wide learning outcomes including content, agency, written and oral proficiency, and collaboration. The emphasis on 21st century skills prepares students with the skills necessary to be successful at the next level. CSA students may qualify for the New Tech diploma seal by completing 12 college credits, 100 hours of community service, and an internship. CSA served as a demonstration site for the New Tech Network, and the host site for Magnify Learning's project based learning academy. Teachers come from all around to learn about, and practice project based learning. In the past 10 years, CSA has hosted thousands of visitors from around the nation and beyond. Visitors come to see a small school founded on the pillars of trust, respect, and responsibility and look at our STEM curriculum. Our vision is to be a revolutionary pathway for education.